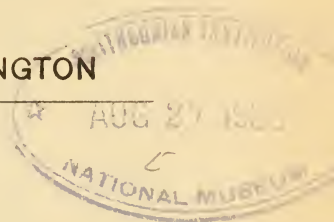


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON



A NEW INTERMEDIATE HOST OF THE ASIATIC
BLOOD FLUKE, SCHISTOSOMA JAPONICUM.

BY PAUL BARTSCH.¹

Since the publication of my paper "Molluscan Intermediate Hosts of the Asiatic Blood Fluke, *Schistosoma japonicum*, and species confused with them"² many mollusks have been sent to us from China for determination, among which is the new species here described.

Katayama tangi, new species.

Shell elongate-conic, thin, semitransparent, reddish brown, with the red intensified on the varix behind the aperture and within the aperture whose peristome is not much darker colored than the lip. Nuclear whorls strongly rounded, minutely granulose under high magnification. Postnuclear whorls well rounded, marked by rather strong closely spaced incremental lines which almost attain the strength of threads on the last whorl. A very heavy varix is present immediately behind the outer lip which extends up on the columella and renders this decidedly tumid. Suture well constricted. Periphery well rounded. Base somewhat inflated, well rounded, narrowly umbilicated and marked like the spire. Aperture broadly obliquely ovate; peristome slightly reflected. Operculum with 3.2 whorls. The radula is typically *Katayamid*, i. e., the rachidian tooth has the formula $\frac{1-1-1}{3---3}$; the lateral tooth has 6 denticles of which the third from the inside is much larger and longer than the rest; the inner marginal has 9 denticles and the outer 5.

This species was collected by Dr. Chung Chang Tang of the Fukien Science Institute, Foochow, China, for whom I take pleasure in naming it, at Futsing, in Fukien Province, China. The type (U. S. N. M. no. 428776) yields the following measurements: number of whorls 7; length 6.4 mm.; diameter 3.1 mm. This and 99 additional specimens from the same station (U. S. N. M. no. 428777) yield the following table of measurements:

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² Smithsonian Miscellaneous Collections, Vol. 95, No. 5, May 11, 1936, pp. 1-60, pl. 1-8.

<i>No. of whorls</i>	<i>Height in mm.</i>	<i>Diameter in mm.</i>	<i>No. of whorls</i>	<i>Height in mm.</i>	<i>Diameter in mm.</i>
7 a	6.4	3.1	7 b	5.2	2.5
5	6.5	3.4	5.5	7.0	3.2
5	6.7	3.1	5	6.2	3.2
5.5	7.1	3.0	5.5	6.6	3.3
5	6.1	3.1	5	5.7	2.7
5	6.9	3.4	7 b	6.8	3.2
4.5	5.4	2.8	6	6.2	2.9
5.5	6.0	2.8	5.5	6.1	2.9
5.5	6.9	3.2	5.5	7.1	3.2
8 b	7.4	3.1	6	6.7	3.2
5	5.9	3.1	6	6.5	3.2
5	6.8	3.2	6	6.3	2.9
6	6.1	2.9	7 b	6.5	3.0
5.5	6.5	3.3	5.5	6.5	3.3
5.5	5.8	2.6	6.5	6.4	3.0
6	6.1	3.0	6.5	6.2	3.0
6	7.0	3.1	5.5	6.7	3.2
6	7.2	3.3	6	7.2	3.4
6	7.4	3.3	6.5	7.2	3.2
5.5	7.6	3.4	5	6.5	3.3
4.5	7.0	3.4	5	6.5	3.2
4.5	5.4	2.9	5	6.3	3.0
5	6.1	3.2	7 b	6.4	3.0
7.5b	7.5	3.3	5.5	7.2	3.3
5	6.1	3.1	5.5	5.7	2.8
6.5b	6.1	3.0	5.5	6.7	3.5
5	6.7	3.3	5.5	6.2	3.0
7 b	7.1	3.1	6	6.9	3.5
6.5	7.2	3.2	7 b	6.1	2.9
5	6.6	3.3	7 b	6.4	3.0
6.5	6.2	2.8	7 b	7.1	3.4
7 b	7.1	3.2	7 b	6.7	3.5
6.5	6.3	3.0	7 b	6.2	3.0
7 b	5.9	2.8	7 b	6.9	3.1
7 b	6.7	3.2	7 b	7.1	3.4
7 b	6.5	2.9	7 b	6.0	2.9
7 b	6.1	2.9	6.5	6.4	3.1
7 b	6.5	2.9	7 b	6.1	2.9
7 b	6.0	2.9	6.5	6.7	3.0
7 b	5.9	3.1	7 b	6.5	3.1
6	6.2	3.1	6	6.1	2.8
7 b	5.7	2.7	6.5b	5.7	2.7
7 b	6.0	2.8	6.5b	5.8	2.7
8 b	7.2	3.1	7 b	6.3	2.9
7 b	6.2	2.9	7 b	6.3	3.0
6.5	5.9	2.7	6.5	5.6	2.9

No. of whorls	Height in mm.	Diameter in mm.	No. of whorls	Height in mm.	Diameter in mm.
7 b	5.7	2.8	6.5 ^b	6.0	2.8
6.5	6.6	3.0	6	5.6	2.8
6	6.2	3.1	7 b	5.6	2.7
7 b	6.4	3.0	6	6.1	2.8
Greatest.....			8.0	7.6	3.5
Least.....			4.5	5.2	2.5
Average.....			6.2	6.4	3.1
a type.					
b complete shell.					

The reddish color conspicuously differentiates this species from the other Chinese *Katayamas*. From *K. lii*, its nearest neighbor, it differs conspicuously in being smaller and less slender and in having a lesser number of whorls which are more inflated. The outer teeth of the radula also have a different denticular formula. For comparison we cite here the formulae of the Chinese species:

<i>K. tangi</i>	first marginal:	9	second marginal:	5
“ <i>lii</i>	“ “	9	“ “	7
“ <i>fausti</i>	“ “	8	“ “	5
“ <i>cantoni</i>	“ “	7	“ “	5

Of these mollusks Dr. Tang writes:

“For several months I have been engaged in the study of schistosomiasis japonica of Fukien province. I have found the distribution of *Katayama* snails in Futsing district quite extensive, occupying the entire northern half of that district. The habitat of the snail is typical for the genus as described by several investigators in other parts of this country. They inhabit the grassy banks of secondary mountain streams, in porous humus and wet earth. They are very seldom found in water. On the latter part of February I observed them pairing, soft part sticking to soft part. Small young snails just visible to the naked eye were plentiful in May. It is very interesting to see that Futsing snails conjugate a month earlier than Chekiang snails (*K. lii*), as observed by Drs. H. C. Kan and Y. T. Yao. . . . Since the record of the endemic area of schistosomiasis and the *Katayama* snails serving as the intermediate hosts of the disease have not yet been reported for this province, I am now engaged in writing a communication of this subject to be published in the Chinese Medical Journal.”